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EXAMINER	
DIVINE, LUCAS	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/880,044	HIRAMATSU ET AL.	
	Examiner	Art Unit	
	Lucas Divine	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *14 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 June 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/13/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **20**. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites the limitation "**state of print**" in page 20 line 14. There is insufficient antecedent basis for this limitation in the claim because there has been no "**state of print**" claimed in parent claim 8 and therefore it is vague and indefinite as to what "**state of print**" is referring to.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the limitation "**second converter comprises a conversion table based on measurement values of color of the print**" in page 20 line 19. The converter discussed in parent claim 8 is for converting inhibition conditions to detection parameters independent of input data. Therefore, measurement values of color of the print would not be available to the converter as claimed in claim 8. Therefore it is vague and indefinite as to how the converter accesses measurement values of color of the print and how the converter uses them. Appropriate clarification is required to make the claim definite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 8 – 10 and 12 – 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Okubo et al. (US 5647010) hereafter referred to as Okubo.

Regarding claim 8, Okubo teaches **an image processor** (image processing section 102; col. 7 lines 10-11) **which processes input image data** (from scanner 101) **and sends the processed data to an image output device** (to plotter 103)**, comprising:**

a memory device which stores output inhibition conditions for inhibiting print of an image including a specified pattern (it is inherent that the system of Okubo includes storing various confidential or inhibited patterns in a memory [such as ROM 901] for use in the detection process of said patterns [inhibition condition pattern shown in Fig. 2])**.**

a converter which converts the output inhibition conditions to detection parameters according to output characteristics of the image output device (Okubo teaches the ROM storing detection parameters for the pattern detection 110 and the document decision 111 [col. 11 lines 20-21], thus implying that they have been converted from an inputted inhibition conditions to detection parameters; for example, a user inputs a pattern to be detected [inhibition condition as shown in Fig. 2], in order to detect such a pattern, the system converts information about the pattern into detection parameters such as thresholds and number of directions to check for pattern information [col. 11 lines 22-

29]; these parameters can be according to an ID [col. 11 line 30] which could be the ID of plotter 103 or the ID of the pattern being looked for);

a detector which detects the specified pattern in the second image data converted by said second converter (Fig. 9, pattern detection unit 110 which uses parameter information from ROM; col. 7 lines 26-28); **and**

a controller which controls the output of the first image data converted by said first converter, according to a result of the detection by said detector (the selector 113 controls the output of the first image data coming from the tone conversion unit [first data converter] by receiving the document decision info from the document decision unit 111 and pattern detection unit 110 and either outputting the requested document or outputting white data as generated by unit 112; col. 7 lines 33-37).

Regarding claim 9, which depends from claim 8, Okubo teaches that **the state of a print includes at least one of color, size and resolution of the print** (example of state used in Okubo is the magnification ratio; col. 16 lines 38-57).

Regarding claim 10, which depends from claim 9, Okubo teaches that **the output inhibition conditions are independent of the input image data and the image output device** (inhibition parameters converted from inhibition conditions are stored in ROM 901 which is a read-only memory, thus no matter what type of image data is scanned in or what type of output device is chosen for the system, the patterns being detected with inhibition parameters remain independent).

Regarding claim 12, which depends from claim 8, Okubo teaches that **the detection parameters are generated for each of setting conditions of the image**

output device (col. 11 lines 30-33, wherein a ID condition is set which generates particular parameters matching the ID for sending to the detection unit).

Regarding claim 13, Okubo teaches in **an image processing system** (shown overall in Fig. 1) **comprising an image processor** (image processing section 102; col. 7 lines 10-11) **which processes input image data** (from scanner 101) **and outputs the processed data, and an image output device** (plotter 103) **which receives the processed data and outputs an image** (col. 7 lines 14-15), **comprising:**

a memory device which stores output inhibition conditions for inhibiting print of an image including a specified pattern (it is inherent that the system of Okubo includes storing various confidential or inhibited patterns in a memory [such as ROM 901] for use in the detection process of said patterns [inhibition condition pattern shown in Fig. 2]).

a converter which converts the output inhibition conditions to detection parameters according to output characteristics of the image output device (Okubo teaches the ROM storing detection parameters for the pattern detection 110 and the document decision 111 [col. 11 lines 20-21], thus implying that they have been converted from an inputted inhibition conditions to detection parameters; for example, a user inputs a pattern to be detected [inhibition condition as shown in Fig. 2], in order to detect such a pattern, the system converts information about the pattern into detection parameters such as thresholds and number of directions to check for pattern information [col. 11 lines 22-29]; these parameters can be according to an ID [col. 11 line 30] which could be the ID of plotter 103 or the ID of the pattern being looked for);

a detector which detects the specified pattern in the second image data converted by said second converter (Fig. 9, pattern detection unit 110 which uses parameter information from ROM; col. 7 lines 26-28); **and**

a controller which controls the output of the first image data converted by said first converter, according to a result of the detection by said detector (the selector 113 controls the output of the first image data coming from the tone conversion unit [first data converter] by receiving the document decision info from the document decision unit 111 and pattern detection unit 110 and either outputting the requested document or outputting white data as generated by unit 112; col. 7 lines 33-37).

Regarding claim 14, the structural elements of apparatus claim 8 perform all of the method steps of method claim 14. Therefore, claim 14 is rejected for the same reasons as stated in the rejection of claim 8 above.

Regarding claim 15, the program steps of claim 15 are the same steps as in the method claim 14. Further, these steps can be implemented by system controller 105 and stored in storage medium 901 for execution as a computer program. Therefore, claim 15 is rejected for the same reasons as method claim 14.

Claim Rejections - 35 USC § 103

6. Claims 1 – 3 and 5 – 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okubo.

Regarding claim 1, Okubo teaches in embodiment eight **an image processor** (image processing section 102; col. 7 lines 10-11) **which processes input image data**

(from scanner 101) **and sends the processed data to an image output device** (to plotter 103), **comprising:**

a first converter which converts the input image data to first image data for image forming (tone converter 109 converts the image data into data for forming as shown in the next step completed after selection is plotting; col. 7 line 25)**;**

a second converter which converts the input image data to second image data (Fig. 22, line thinning section 1302 converts the data into second data for the pattern detection unit 110) **in correspondence to a state of a print obtained by the image output device** (col. 16 lines 38-42, line thinning section 1302 thins the data in matching relation 'correspondence' to the magnification change ratio 'state' of the print that is received by the plotter 103, for example, the user selects magnification change ratio 200% [col. 16 line 3] and that data, through the flow of the image processing section, is obtained by the plotter, thus the plotter 103 obtains information regarding the state [in this case magnification of 200%] of the data to be printed)**;**

a detector which detects the specified pattern in the second image data converted by said second converter (pattern detection unit 110 which accepts data from the line thinning unit 1302; col. 7 lines 26-28)**; and**

a controller which controls the output of the first image data converted by said first converter, according to a result of the detection by said detector (the selector 113 controls the output of the first image data coming from the tone conversion unit [first data converter] by receiving the document decision info from the document decision unit 111 and pattern detection unit 110 and either outputting the requested document or outputting white data as generated by unit 112; col. 7 lines 33-37).

While the eighth embodiment teaches the detector making decisions detecting patterns, it does not specifically teach making these decisions **based on the output inhibition conditions stored in a memory device or a memory device which stores output inhibition conditions for inhibiting print of an image including a specified pattern.**

Embodiment two (Fig. 9; col. 11) teaches making pattern detection decision **based on the output inhibition conditions stored in a memory device and a memory device which stores output inhibition conditions for inhibiting print of an image including a specified pattern** (ROM 901 which stores parameters relating to pattern detection 110; col. 11 lines 18-29).

Since the feature of adding ROM for decision accuracy was taught by Okubo already, it would have been obvious to one of ordinary skill in the art to add the memory feature of embodiment two to the image processing system of embodiment eight. Further, Okubo teaches adding such a ROM 901 to have strict control over decision accuracy, which would have been a motivation to add the ROM 91 of embodiment two to the image processing system of embodiment eight.

Regarding claim 2, which depends from claim 1, Okubo teaches that **the state of a print includes at least one of color, size and resolution of the print** (example of state used in Okubo is the magnification ratio; col. 16 lines 38-57).

Regarding claim 3, which depends from claim 1, Okubo teaches that **the output inhibition conditions are independent of the input image data and the image output device** (inhibition parameters are stored in ROM 901 which is a read-only memory, thus no matter what type of image data is scanned in or what type of output device is chosen

for the system, the patterns being detected with inhibition parameters remain independent).

Regarding claim 5, Okubo teaches in embodiment eight **an image processing system** (shown overall in Fig. 1) **comprising an image processor** (image processing section 102; col. 7 lines 10-11) **which processes input image data** (from scanner 101) **and outputs the processed data, and an image output device** (plotter 103) **which receives the processed data and outputs an image** (col. 7 lines 14-15), **comprising:**

a first converter which converts the input image data to first image data for image forming (tone converter 109 converts the image data into data for forming as shown in the next step completed after selection is plotting; col. 7 line 25)**;**

a second converter which converts the input image data to second image data (Fig. 22, line thinning section 1302 converts the data into second data for the pattern detection unit 110) **in correspondence to a state of a print obtained by the image output device** (col. 16 lines 38-42, line thinning section 1302 thins the data in matching relation 'correspondence' to the magnification change ratio 'state' of the print that is received by the plotter 103, for example, the user selects magnification change ratio 200% [col. 16 line 3] and that data, through the flow of the image processing section, is obtained by the plotter, thus the plotter 103 obtains information regarding the state [in this case magnification of 200%] of the data to be printed);

a detector which detects the specified pattern in the second image data converted by said second converter (pattern detection unit 110 which accepts data from the line thinning unit 1302; col. 7 lines 26-28); **and**

a controller which controls the output of the first image data converted by said first converter, according to a result of the detection by said detector (the selector 113 controls the output of the first image data coming from the tone conversion unit [first data converter] by receiving the document decision info from the document decision unit 111 and pattern detection unit 110 and either outputting the requested document or outputting white data as generated by unit 112; col. 7 lines 33-37).

While the eighth embodiment teaches the detector making decisions detecting patterns, it does not specifically teach making these decisions **based on the output inhibition conditions stored in a memory device or a memory device which stores output inhibition conditions for inhibiting print of an image including a specified pattern.**

Embodiment two (Fig. 9; col. 11) teaches making pattern detection decision **based on the output inhibition conditions stored in a memory device and a memory device which stores output inhibition conditions for inhibiting print of an image including a specified pattern** (ROM 901 which stores parameters relating to pattern detection 110; col. 11 lines 18-29).

Since the feature of adding ROM for decision accuracy was taught by Okubo already, it would have been obvious to one of ordinary skill in the art to add the memory feature of embodiment two to the image processing system of embodiment eight. Further, Okubo teaches adding such a ROM 901 to have strict control over decision accuracy, which would have been a motivation to add the ROM 91 of embodiment two to the image processing system of embodiment eight.

Regarding claim 6, the structural elements of apparatus claim 1 perform all of the method steps of method claim 6. Therefore, claim 6 is rejected for the same reasons as stated in the rejection of claim 1 above.

Regarding claim 7, the program steps of claim 7 are the same steps as in the method claim 6. Further, these steps can be implemented by system controller 105 and stored in storage medium 901 for execution as a computer program. Therefore, claim 7 is rejected for the same reasons as method claim 6.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okubo as applied to claim 1 above, and further in view of Sato et al. (US 6047085) hereafter referred to as Sato.

Regarding claim 4, which depends from claim 1, while Okubo teaches a image processing system that can be a color copier (col. 1 line 16) including a converter for converting image data before pattern detection (discussed in rejection of claim 1), Okubo does not specifically teach that **said second converter comprises a conversion table based on measurement values of color of the print.**

Sato specifically teaches a **converter comprises a conversion table based on measurement values of color of the print** (color feature extractor for includes look-up table 2210 [shown in Figs. 21 and 29] selecting the correct inhibition parameters from dictionary data controller 120 to be sent to pattern matching section 122 – this dictionary data controller 120 acts similarly to the ROM of Okubo in that it takes in the pattern from dictionary 118, and also takes in information from keyboard 3204 [Okubo takes in ID

information in for the ROM] and sends inhibition parameters to the pattern detecting section).

It would have therefore been obvious to one of ordinary skill in the art to provide color decisions pattern detections in the case where Okubo is implemented using a color copier. The motivations for doing so would have been to provide more accurate pattern detection by testing more than just black and white thresholds for pattern detection in a color copying environment.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okubo as applied to claim 8 above, and further in view of Sato.

Regarding claim 11, which depends from claim 8, while Okubo teaches a image processing system that can be a color copier (col. 1 line 16) including a converter for converting image data before pattern detection (1302), Okubo does not specifically teach that **said second converter comprises a conversion table based on measurement values of color of the print.**

Sato specifically teaches a **converter comprises a conversion table based on measurement values of color of the print** (color feature extractor for includes look-up table 2210 [shown in Figs. 21 and 29] selecting the correct inhibition parameters from dictionary data controller 120 to be sent to pattern matching section 122 – this dictionary data controller 120 acts similarly to the ROM of Okubo in that it takes in the pattern from dictionary 118, and also takes in information from keyboard 3204 [Okubo takes in ID information in for the ROM] and sends inhibition parameters to the pattern detecting section).

It would have therefore been obvious to one of ordinary skill in the art to provide color decisions pattern detections in the case where Okubo is implemented using a color copier. The motivations for doing so would have been to provide more accurate pattern detection by testing more than just black and white thresholds for pattern detection in a color copying environment.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-5621810, Suzuki et al., 4-15-1997 : teaches image reading or processing with ability to prevent copying of certain originals.

US-6222935, Okamoto, 4-24-2001: teaches a pattern inspecting method and pattern inspecting device.

US-6307963, Nishida et al., 10-23-2001 : teaches an image detection method, image detection apparatus, image processing method, image processing apparatus, and medium.

US-6539114, Shimazawa, 3-25-2003: teaches an image processing apparatus including color conversion using color conversion tables.

US-6807388, Kojima et al., 10-19-2004: teaches a data monitoring method, data monitoring device, copying device, and storage medium.

US-5917619, Yamagata et al., 6-29-1999 : teaches an image forming apparatus including copy-inhibiting document detecting means and color conversion processing section.

US-5659628, Tachikawa et al., 8-19-1997: teaches a special-document discriminating apparatus and managing system for image forming apparatus having a special-document discriminating function.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 703-306-3440. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KING Y. POON
PRIMARY EXAMINER

Lucas Divine
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